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SOLIDAGO FLACCIDIFOLIA SMALL (ASTERACEAE) NEW TO OKLAHOMA AND OTHER GOLDENROD NOTES—In a loan of unrelated *Solidago* L. specimens from US a specimen of *Solidago flaccidifolia* Small from the Ouachita Mountains appeared: OKLAHOMA: Le Flore Co.: near Page, in open woods on mountain side, 9 Sep 1913, *G. W. Stevens s.n.* (originally misidentified as *Solidago caesia* L.). This is the first report of *S. flaccidifolia* from Oklahoma, and the first west of Louisiana (Cronquist, 1963). Identification was verified by comparison with several herbarium specimens in NCU annotated by Cronquist, with the holotype (NY!), a topotype (US!), and from personal experience with the species in the field.

The arrangement of *Solidago caesia* into a number of varieties by Taylor and Taylor (1983) elicits discussion as the species has not been treated as divisible by other authors since early in the present century. In their arrangement, *Solidago flaccidifolia* is treated as a synonym of the superfluous variety *Solidago caesia* var. *paniculata* Gray. Steyermark (1963) states, under *S. caesia*, "The typical form has the heads in loosely paniculate leafy inflorescences, while the so-called f. *axillaris* (Pursh) House has the heads in simply loose axillary clusters on a simple stem . . . it is not believed that such forms are of any taxonomic value . . .". The type of *Solidago caesia* L. Sp. Pl.: 879. 1753 is based on Dill. elth. 414. f. 395!, an engraving of a

paniculate-corymbose plant, so described by Linnaeus; however, the common phase of *S. caesia* is the simple-stemmed one. In my garden, a simple-stemmed plant of *S. caesia* and one of *Solidago curtisii* T. & G. turned into paniculate ones in a subsequent season. I have never seen *S. flaccidifolia* in any but a simple-stemmed growth habit. It has often been incorrectly dismissed as a "fat"-leaved variant of *S. caesia* or of *S. curtisii*, but it differs from either of the other species as described in Cronquist (1980). In addition to the characters described by Cronquist (l. c.), the involucre bracts of *S. flaccidifolia* are more or less puberulent.

I prefer to retain the name *Solidago curtisii* T. & G. for *Solidago caesia* var. *curtisii* (T. & G.) Wood (Taylor and Taylor, 1983, 1984), in conformity with long-standing majority treatment, because it forms an endemic cohort of the southern Appalachians with well-isolated characters from those of close relative species, so well-documented in the literature that there is no need to reiterate them here. I have, however, noted a character not mentioned in the literature: the leaves of *S. caesia* tend to be yellow-green; those of *S. curtisii* and *S. flaccidifolia* are dark rich green.

The premise of Taylor and Taylor (1983) that *Solidago caesia* var. *hispida* Wood must replace the name *Solidago curtisii* var. *pubens* (Curtis in T. & G.) Gray I believe to be a misapplication. Wood's name, from his Classbook (Ed. 1): 197. 1845, is without type and he describes his taxon as having "a hispid stem and rough leaves". There are no *S. caesia* with such characters, but these are the characters of *Solidago hispida* Muhl., and the Wood name, therefore, is a synonym of that species and should be cited as *Solidago caesia* var. *hispida* (Muhl.) Wood. I believe the Wood combination derives from the unfortunate statement in Pursh, Fl. Amer. Sept.: 541. 1814, that *S. hispida* "resembles no. 33 (*S. caesia*)". Presumably the Pursh Flora was still widely used in 1845. The geography of Wood's first Classbook is largely New York and New England, well out of range of *S. curtisii* var. *pubens*, endemic to the southern Appalachians, a minor variant of *S. curtisii* with puberulent to tomentulose stems, and sometimes leaves, (holotype NY!) which Cronquist (1980) does not even recognize anymore.—Leonard J. Uttal, Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, U.S.A.

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